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PART II:

ENVIRONMENTAL PROTECTION AGENCY

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PHOSPHATE MANUFACTURING POINT SOURCE CATEGORY

Effluent Guidelines and Standards

Title 40—Protection of Environment

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

SUBCHAPTER N—EFFLUENT GUIDELINES AND STANDARDS

[FRL 565-4]

PART 422—THE PHOSPHATE MANUFACTURING POINT SOURCE CATEGORY

Subpart D—The Defluorinated Phosphate Rock Subcategory

Subpart E—The Defluorinated Phosphoric Acid Subcategory

Subpart F—The Sodium Phosphates Subcategory

On January 27, 1975 notice was published in the FEDERAL REGISTER (40 FR 4102 and 4110) establishing interim final effluent limitations and guidelines for existing sources, proposing standards of performance for new sources and proposing pretreatment standards for existing and new sources for the defluorinated phosphate rock subcategory (Subpart D), the defluorinated phosphoric acid subcategory (Subpart E) and the sodium phosphates subcategory (Subpart F) of the Phosphate Manufacturing Point Source Category (Part 422 to Chapter 40 of the Code of Federal Regulations 39 FR 6580).

The purpose of this notice is to establish final effluent limitations and guidelines for existing sources and standards of performance for new sources in this segment of the phosphate manufacturing category of point sources by amending 40 CFR Chapter I, Subchapter N, Part 422 by adding thereto the defluorinated phosphate rock subcategory (Subpart D), the defluorinated phosphoric acid subcategory (Subpart E) and the sodium phosphates subcategory (Subpart F). Sections 422.41, 422.42, 422.43, 422.45, 422.51, 422.52, 422.53 and 422.55 applicable to defluorinated phosphate rock manufacture and to defluorinated phosphoric acid manufacture have been modified because of continuing studies and discussions with representatives of the industry. The sodium phosphate subcategory is promulgated in final form as it appeared in the interim final form except that a pH limitation of 6.0 to 9.5 is set for BPT, BAT and new source in the promulgated form. This final rulemaking is promulgated pursuant to sections 301, 304 (b) and (c), 306 (b) and (c) and 307(c) of the Federal Water Pollution Control Act, as amended, (the Act); (33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c) and 1317(c)); 86 Stat. 816 et seq.; Pub. L. 92-500.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of interim final rulemaking and the notice of proposed rulemaking for the defluorinated phosphate rock subcategory, the defluorinated phosphoric acid subcategory and the sodium phosphates subcategory. In addition, the regulation as proposed was supported by two other documents: (1) the document entitled "Development Document for Interim Final Effluent Limitations Guidelines and Proposed New Source Performance Standards for the Other Non-Fertilizer Phosphate Chemicals Segment of the Phosphate Manufacturing Point Source Category" January, 1975 and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines, Non-Fertilizer Phosphate Manufacturing Industry," September, 1974. Both of these documents were made available to the public and circulated to interested persons at approximately the time of publication of the January 27, 1975 notice.

The Agency is not promulgating pretreatment standards at this time pending resolution of certain important policy issues. The agency is undertaking an intensive review of pretreatment policy, and expects to arrive at an overall approach to the pretreatment question within the near future. As soon as the policy and technical issues are resolved, new source pretreatment standards for this industry will be promulgated.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties was described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response thereto follows:

(a) Summary of comments.

The following responded to the request for written comments contained in the preamble to the proposed regulation: Olin Chemicals.

Each of the comments made by Olin was carefully reviewed and analyzed. The following is a summary of the significant comments and the Agency's response to them.

(1) A suggestion was made to increase the area of the "within the impoundment" definition for both existing ponds and for ponds constructed on or after the date of this regulation.

EPA has conducted extensive discussions with representatives of the fertilizer phosphate and the phosphate manufacturing industries concerning regulation of ponds and has gathered additional information on pond problems. EPA considered the special problems of use of ponds by producers of defluorinated phosphate rock and defluorinated phosphoric acid, including a review of the similarities and differences of the various pond requirements by category and subcategory. These final regulations provide relief to the problem through allowance for discharge of treated effluent in periods of heavy rainfall.

(2) The suggestion was made that consideration be given to long periods of sustained rainfall, as well as to maximum expected rainfall for one day.

These final regulations allow discharges for periods of excessive rainfall.

(3) The suggestion was made that EPA consider the exception being discussed for the fertilizer phosphate industry which allows certain discharges of "contaminated non-process waste water."

EPA has added this definition and has allowed a controlled discharge under this definition.

(4) The ability of double liming to meet the proposed phosphorus, fluoride and suspended solids concentrations was challenged.

EPA has carried out some additional studies which led to increased discharge allowances for phosphate, fluoride and suspended solids, and to a broader pH range. The regulations reflect the best judgment of EPA based on available technical data.

(b) Amendment of the proposed regulations prior to promulgation.

As a result of public comments, discussions with representatives of industry and continuing review and evaluation of the proposed regulation by the EPA, the following changes have been made in the regulation.

A new definition, "contaminated non-process wastewater" has been added to the regulation. This deals with the handling of pollution from accidental spills, spills caused by failure of process equipment, discharges from safety showers and related personnel safety equipment, washing for the purpose of entry, inspection and maintenance and precipitation runoff. The major volume of "contaminated non-process wastewater" is cooling water that is not normally contaminated. This was added as a result of extensive discussion with industrial representatives on the problems.

The final regulation thereby includes a provision allowing a discharge of treated effluent which results from incidental leaks and spills which may occur throughout the manufacturing process as well as a provision for process wastewater. Industry has argued vigorously that it is impossible to operate a facility of this type without having occasional equipment failures which result in leakage into non-process wastewater. The Agency concurs with this general premise, but believes that any allowance for leaks and spills must be closely controlled to require a maximum management effort to minimize the possibilities of pollution caused by unnecessary leaks and spills or leaks which are otherwise left unattended. For this reason, the leaks and spills portion of the regulation contains restrictive clauses requiring prompt management attention to and correction of leaks and spills which may occur. The "contaminated non-process wastewater" allowance is made only where effluent limitations are on a concentration basis. No suspended solids limitation was placed on contaminated nonprocess wastewater because the major volume is cooling water without a significant suspended solids content.

Specifications for recirculation and reuse ponds were changed as a result of extensive discussions with industrial rep-

resentatives. Discharge of lime treated effluent in periods of catastrophic rainfall was permitted as a result of these discussions.

The permissible concentrations of fluoride, phosphorus and suspended solids in treated discharges was criticized as being too low. EPA made further studies of this problem. Higher concentrations of phosphate, fluoride, suspended solids and a broader pH range were permitted.

EPA has decided as a result of extensive studies and discussions with representatives of industry to promulgate pond freeboard capacity requirements and rainfall discharge allowances identical to those of the fertilizer phosphate industry. This arrangement permits discharge of both treated process wastewater and treated "contaminated non-process wastewater" from rock defluorination and acid defluorination manufacturing by the treatment established for wet phosphoric acid manufacture.

(c) Economic and inflationary impact. Executive Order 11821 (November 27, 1974) requires that major proposals for legislation and promulgation of regulations and rules by agencies of the executive branch be accompanied by a statement certifying that the inflationary impact of the proposal has been evaluated. The Administrator has directed that all regulatory actions which are likely to result in (1) annualized costs of $100 million, (2) additional costs of production of more than 5% of the selling price, or (3) an energy consumption increase equivalent to 25,000 barrels of oil a day will require a certified inflationary impact statement. The Agency's analysis indicates that the annualized cost is $6.1 million and the increase in energy consumption is small, but the unit cost of treatment may be as high as 5.6% of selling price. Therefore, the following economic and inflationary impact statement is certified by the Administrator.

The economic impact remains the same as for those regulations issued on January 27, 1975, since the recommended technology remains the same. The results of the economic analysis is summarized below. Internal costs given in 1976 dollars are defined as investment and annual cost, where annual cost is composed of operating costs, maintenance cost, the cost of capital, and depreciation. External cost deals with the assessment of the economic impact of the internal costs in terms of price increases, production curtailments, plant closures, resultant unemployment, community and regional impacts, international trade, and industry growth.

The defluorinated phosphate rock subcategory will incur an investment cost of $5.3 million and an annual cost of $1.0 million to achieve the 1977 effluent limitations. An additional $0.2 million investment and an additional $0.1 million in annual costs are required in 1983. The unit costs range from 1.6% of selling price for the larger plants to 5.5% for the smaller plants, with an increase of 0.1% in 1983. These costs reflect that all four of the plants in this subcategory currently have ponds that may be modified to meet the standards. No decreases are expected in production, employment, or industry growth. The overall economic impact is expected to be small.

The defluorinated acid producers would have an investment of $7.7 million and an annual cost of $3.8 million to achieve the 1977 standards. An additional $1.4 million investment and an additional $0.1 million in annual costs are require in 1983. The unit costs range from 2.3% of the selling price for larger plants to 3.9% for the smaller plants, with an increase of 0.1% in 1983. Three of the eleven plants in this subcategory do not have a pond currently in place. It is expected that the high capital costs that are necessary to build the ponds may force the closure of one of these three plants. The other two plants have negative cash flows under the 1973 baseline conditions and are expected to close for reasons other than investment in pollution treatment equipment. These plants account for approximately 16% of industry capacity, but no significant reduction in industry supply is likely to occur since the other plants have some excess capacity. An estimated 39 jobs may be lost due to these closures, but these plants are in fairly large trade areas where the loss of jobs would not create a severe community impact.

The sodium tripolyphosphate subcategory consists of only one plant. This plant does not have a containment pond and would incur the full costs of the treatment system. The investment required is $400,000 with an annual operating cost of $1,100,000. No additional expense would be incurred in meeting the 1983 standards. The unit cost of pollution treatment is 4.4% of selling price. It is possible that this plant will close, causing a loss of 120,000 tons per year of production and approximately 21 jobs. The STPP plant accounts for about 12 percent of STPP production, and existing capacity in the remaining plants should be sufficient to offset any reduction in the output of STPP. It is expected that the displaced workers would be absorbed into the labor force in their community.

(d) Cost-benefit analysis. The detrimental effects of the constituents of waste waters now discharged by point sources within the other non-fertilizer phosphate segment of the phosphate manufacturing point source category are discussed in Section VI of the report entitled "Development Document for Interim Final Effluent Limitations Guidelines and Proposed New Source Performance Standards for the Other Non-Fertilizer Phosphate Chemicals Segment of the Phosphate Manufacturing Point Source Category" January, 1975. It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in Section VI, the pollutants discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in Section VIII and in the supplementary report entitled "Economic Analysis of Effluent Guidelines for the Other Non-Fertilizer Phosphate Segment of the PHOSPHATE MANUFACTURING INDUSTRY" March 1976. Implementing the limitations will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the other non-fertilizer phosphate segment of the phosphate manufacturing industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry.

(e) Publication of information on processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants.

In conformance with the requirements of section 304(c) of the Act, a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Standards of Performance for the Other Non-Fertilizer Phosphate Chemicals Segment of the Phosphate Manufacturing Point Source Category," will be published and will be available for purchase from the Government Printing Office, Washington, D.C. 20402 for a nominal fee.

Copies of the economic analysis document previously cited will be available from the National Technical Information Service, Springfield, VA 22151.

(f) Final rulemaking.

In consideration of the foregoing, 40 CFR Chapter I, Subchapter N, Part 422, Phosphate Manufacturing Point Source Category, is hereby amended by revising Subparts D, E and F to read as set forth below.

The final regulation promulgated below establishing the best practicable control technology currently available, the best available technology economically achievable and the standards of performance for new sources shall become effective July 23, 1976.

Dated: June 15, 1976.

RUSSELL E. TRAIN,
Administrator.

Subpart D—Defluorinated Phosphate Rock Subcategory

Sec.

422.40 Applicability; description of the defluorinated phosphate rock subcategory.
422.41 Specialized definitions.
422.42 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Sec.
422.43 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
422.44 [Reserved]
422.45 Standard of performance for new sources.
422.46 [Reserved]

Subpart E—Defluorinated Phosphoric Acid Subcategory

422.50 Applicability: description of the defluorinated phosphoric acid subcategory.
422.51 Specialized definitions.
422.52 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
422.53 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
422.54 [Reserved]
422.55 Standards of performance for new sources.
422.56 [Reserved]

Subpart F—Sodium Phosphates Subcategory

422.60 Applicability; description of the sodium phosphates subcategory.
422.61 Specialized definitions.
422.62 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
422.63 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
422.64 [Reserved]
422.65 Standards of performance for new sources.
422.66 [Reserved]

AUTHORITY: Secs. 301, 304 (b) and (c), 306 (b) and (c) and 307 (c) of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c) and 1317 (c)); 86 Stat. 816 et seq.; Pub. L. 92-500.

Subpart D—Defluorinated Phosphate Rock Subcategory

§ 422.40 Applicability; description of the defluorinated phosphate rock subcategory.

The provisions of this subpart are applicable to discharges resulting from the defluorination of phosphate rock by application of high temperature treatment along with wet process phosphoric acid, silica and other reagents.

§ 422.41 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations, and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "process waste water" means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product. The term "process waste water" does not include contaminated non-process waste water, as defined below.

(c) The term "contaminated non-process wastewater" shall mean any water including precipitation runoff, which during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, by-product or waste product by means of (1) precipitation runoff, (2) accidental spills, (3) accidental leaks caused by the failure of process equipment and which are repaired or the discharge of pollutants therefrom contained or terminated within the shortest reasonable time which shall not exceed 24 hours after discovery or when discovery should reasonably have been made, whichever is earliest, and (4) discharges from safety showers and related personal safety equipment, and from equipment washings for the purpose of safe entry, inspection and maintenance; provided that all reasonable measures have been taken to prevent, reduce, eliminate and control to the maximum extent feasible such contact and provided further that all reasonable measures have been taken that will mitigate the effects of such contact once it has occurred.

(d) The term "ten year 24 hour rainfall event" shall mean the maximum precipitation event with a probable recurrence interval of once in 10 years as defined by the National Weather Service in technical paper no. 40, "Rainfall Frequency Atlas of the United States," May 1961, and subsequent amendments or equivalent regional or State rainfall probability information developed therefrom.

(e) The term "25 year 24 hour rainfall event" shall mean the maximum precipitation event with a probable recurrence interval of once in 25 years as defined by the National Weather Service in technical paper no. 40, "Rainfall Frequency Atlas of the United States," May, 1961, and subsequent amendments or equivalent regional or State rainfall probability information developed therefrom.

§ 422.42 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) Subject to the provisions of paragraphs (b), (c) and (d) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: there shall be no discharge of process wastewater pollutants to navigable waters.

(b) Process wastewater pollutants from a cooling water recirculation system designed, constructed and operated to maintain a surge capacity equal to the runoff from the 10-year, 24-hour rainfall event may be discharged, after treatment to the standards set forth in paragraph (c) of this section, whenever chronic or catastrophic precipitation events cause the water level in the pond to rise into the surge capacity. Process waste water must be treated and discharged whenever the water level equals or exceeds the mid point of the surge capacity.

(c) The concentration of pollutants discharged in process wastewater pursuant to the limitations of paragraph (b) of this section shall not exceed the values listed in the following table:

[Milligrams per liter]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Total phosphorus (as P).	105	35
Fluoride (as F)	75	25
TSS	150	50
pH	Within the range 6.0 to 9.5.	

The total suspended solid limitation set forth in this paragraph shall be waived for process wastewater from a calcium sulfate storage pile runoff facility, operated separately or in combination with a water recirculation system, which is chemically treated and then clarified or settled to meet the other pollutant limitations set forth in this paragraph.

(d) The concentration of pollutants discharged in contaminated non-process wastewater shall not exceed the values listed in the following table:

[Milligrams per liter]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Total phosphorus (as P).	105	35
Fluoride (as F)	75	25
pH	Within the range 6.0 to 9.5.	

§ 422.43 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) Subject to the provisions of paragraphs (b), (c) and (d) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process wastewater pollutants to navigable waters.

(b) Process waste water pollutants from a cooling water recirculation system designed, constructed and operated to

maintain a surge capacity equal to the runoff from the 25-year, 24-hour rainfall event may be discharged, after treatment to the standards set forth in paragraph (c) of this section, whenever chronic or catastrophic precipitation events cause the water level in the pond to rise into the surge capacity. Process waste water must be treated and discharged whenever the water level equals or exceeds the mid point of the surge capacity.

(c) The concentration of pollutants discharged in process wastewater pursuant to the limitations of paragraph (b) of this section shall not exceed the values listed in the following table:

[Milligrams per liter]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Total phosphorus (as P).	105	35
Fluoride (as F)	75	25
TSS	150	50
pH	Within the range 6.0 to 9.5.	

The total suspended solid limitation set forth in this paragraph shall be waived for process wastewater from a calcium sulfate storage pile runoff facility, operated separately or in combination with a water recirculation system, which is chemically treated and then clarified or settled to meet the other pollutant limitations set forth in this paragraph.

(d) The concentration of pollutants discharged in contaminated non-process wastewater shall not exceed the values listed in the following table:

[Milligrams per liter]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Total phosphorus (as P).	105	35
Fluoride (as F)	75	25
pH	Within the range 6.0 to 9.5.	

§ 422.44 [Reserved]

§ 422.45 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

(a) Subject to the provisions of paragraphs (b), (c) and (d) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of standards of performance for new sources: there shall be no discharge of process wastewater pollutants to navigable waters.

(b) Process waste water pollutants from a cooling water recirculation system designed, constructed and operated to maintain a surge capacity equal to the runoff from the 25-year, 24-hour rainfall event may be discharged, after treatment to the standards set forth in paragraph (c) of this section, whenever chronic or catastrophic precipitation events cause the water level in the pond to rise into the surge capacity. Process waste water must be treated and discharged whenever the water level equals or exceeds the mid point of the surge capacity.

(c) The concentration of pollutants discharged in process wastewater pursuant to the limitations of paragraph (b) of this section shall not exceed the values listed in the following table:

[Milligrams per liter]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Total phosphorus (as P).	105	35
Fluoride (as F)	75	25
TSS	150	50
pH	Within the range 6.0 to 9.5.	

The total suspended solid limitation set forth in this paragraph shall be waived for process wastewater from a calcium sulfate storage pile runoff facility, operated separately or in combination with a water recirculation system, which is chemically treated and then clarified or settled to meet the other pollutant limitations set forth in this paragraph.

(d) The concentration of pollutants discharged in contaminated non-process wastewater shall not exceed the values listed in the following table:

[Milligrams per liter]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Total phosphorus (as P).	105	35
Fluoride (as F)	75	25
pH	Within the range 6.0 to 9.5.	

§ 422.46 [Reserved]

Subpart E—Defluorinated Phosphoric Acid Subcategory

§ 422.50 Applicability; description of the defluorinated phosphoric acid subcategory.

The provisions of this subpart are applicable to discharges resulting from the defluorination of phosphoric acid. Wet process phosphoric acid is dehydrated by application of heat and other processing aids such as vacuum and air stripping. The acid is concentrated up to 70–73% P_2O_5 in the defluorination process.

§ 422.51 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations, and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "process waste water" means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product. The term "process waste water" does not include contaminated non-process waste water, as defined below.

(c) The term "contaminated non-process wastewater" shall mean any water including precipitation runoff, which during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, by-product or waste product by means of (1) precipitation runoff, (2) accidental spills, (3) accidental leaks caused by the failure of process equipment and which are repaired or the discharge of pollutants therefrom contained or terminated within the shortest reasonable time which shall not exceed 24 hours after discovery or when discovery should reasonably have been made, whichever is earliest, and (4) discharges from safety showers and related personal safety equipment, and from equipment washings for the purpose of safe entry, inspection and maintenance; provided that all reasonable measures have been taken to prevent, reduce, eliminate and control to the maximum extent feasible such contact and provided further that all reasonable measures have been taken that will mitigate the effects of such contact once it has occurred.

(d) The term "ten year 24 hour rainfall event" shall mean the maximum precipitation event with a probable recurrence interval of once in 10 years as defined by the National Weather Service in technical paper no. 40, "Rainfall Frequency Atlas of the United States," May 1961, and subsequent amendments or equivalent regional or State rainfall probability information developed therefrom.

(e) The term "25 year 24 hour rainfall event" shall mean the maximum precipitation event with a probable recurrence interval of once in 25 years as defined by the National Weather Service in technical paper no. 40, "Rainfall Frequency Atlas of the United States," May 1961, and subsequent amendments or equivalent regional or State rainfall probability information developed therefrom.

§ 422.52 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) Subject to the provisions of paragraphs (b), (c) and (d) of this section,

the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: there shall be no discharge of process wastewater pollutants to navigable waters.

(b) Process waste water pollutants from a cooling water recirculation system designed, constructed and operated to maintain a surge capacity equal to the runoff from the 10-year, 24-hour rainfall event may be discharged, after treatment to the standards set forth in paragraph (c) of this section, whenever chronic or catastrophic precipitation events cause the water level in the pond to rise into the surge capacity. Process waste water must be treated and discharged whenever the water level equals or exceeds the mid point of the surge capacity.

(c) The concentration of pollutants discharged in process wastewater pursuant to the limitations of paragraph (b) of this section shall not exceed the values listed in the following table:

[Milligrams per liter]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Total phosphorus (as P).	105	35
Fluoride (as F)	75	25
TSS	150	50
pH	Within the range 6.0 to 9.5.	

The total suspended solid limitation set forth in this paragraph shall be waived for process wastewater from a calcium sulfate storage pile runoff facility, operated separately or in combination with a water recirculation system, which is chemically treated and then clarified or settled to meet the other pollutant limitations set forth in this paragraph.

(d) The concentration of pollutants discharged in contaminated non-process wastewater shall not exceed the values listed in the following table:

[Milligrams per liter]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Total phosphorus (as P).	105	35
Fluoride (as F)	75	25
pH	Within the range 6.0 to 9.5.	

§ 422.53 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or properties, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) Subject to the provisions of paragraphs (b), (c) and (d) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process wastewater pollutants to navigable waters.

(b) Process waste water pollutants from a cooling water recirculation system designed, constructed and operated to maintain a surge capacity equal to the runoff from the 25-year, 24-hour rainfall event may be discharged, after treatment to the standards set forth in paragraph (c) of this section, whenever chronic or catastrophic precipitation events cause the water level in the pond to rise into the surge capacity. Process waste water must be treated and discharged whenever the water level equals or exceeds the mid point of the surge capacity.

(c) The concentration of pollutants discharged in process wastewater pursuant to the limitations of paragraph (b) of this section shall not exceed the values listed in the following table:

[Milligrams per liter]

Effluent characteristic	Effluent limitations	
	Maximum for and 1 day	Average of daily values for 30 consecutive days shall not exceed—
Total phosphorus (as P).	105	35
Fluoride (as F)	75	25
TSS	150	50
pH	Within the range 6.0 to 9.5.	

The total suspended solid limitation set forth in this paragraph shall be waived for process wastewater from a calcium sulfate storage pile runoff facility, operated separately or in combination with a water recirculation system, which is chemically treated and then clarified or settled to meet the other pollutant limitations set forth in this paragraph.

(d) The concentration of pollutants discharged in contaminated non-process wastewater shall not exceed the values listed in the following table:

[Milligrams per liter]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Total phosphorus (as P).	105	35
Fluoride (as F)	75	25
pH	Within the range 6.0 to 9.5.	

§ 422.54 [Reserved]

§ 422.55 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

(a) Subject to the provisions of paragraphs (b), (c) and (d) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of standards of performance for new sources: there shall be no discharge of process wastewater pollutants to navigable waters.

(b) Process waste water pollutants from a cooling water recirculation system designed, constructed and operated to maintain a surge capacity equal to the runoff from the 25-year, 24-hour rainfall event may be discharged, after treatment to the standards set forth in paragraph (c) of this section whenever chronic or catastrophic precipitation events cause the water level in the pond to rise into the surge capacity. Process waste water must be treated and discharged whenever the water level equals or exceeds the mid point of the surge capacity.

(c) The concentration of pollutants discharged in process wastewater pursuant to the limitations of paragraph (b) of this section shall not exceed the values listed in the following table:

[Milligrams per liter]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Total phosphorus (as P).	105	35
Fluoride (as F)	75	25
TSS	150	50
pH	Within the range 6.0 to 9.5.	

The total suspended solid limitation set forth in this paragraph shall be waived for process wastewater from a calcium sulfate storage pile runoff facility, operated separately or in combination with a water recirculation system, which is chemically treated and then clarified or settled to meet the other pollutant limitations set forth in this paragraph.

(d) The concentration of pollutants discharged in contaminated non-process wastewater shall not exceed the values listed in the following table:

[Milligrams per liter]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Total phosphorus (as P).	105	35
Fluoride (as F)	75	25
pH	Within the range 6.0 to 9.5.	

§ 422.56 [Reserved]

Subpart F—Sodium Phosphates Subcategory

§ 422.60 Applicability; description of the sodium phosphates subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of purified sodium phosphates from wet process phosphoric acid.

§ 422.61 Specialized definitions.

For the purpose of this subpart:

Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

§ 422.62 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

[Metric units, kg/kkg of product; English units, lb/1,000 lb of product]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
TSS	0.50	0.25
Total phosphorus (as P).	0.80	0.40
Fluoride (as F)	0.30	0.15
pH	Within the range 6.0 to 9.5.	

§ 422.63 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Metric units, kg/kkg of product; [English units, lb/1,000 lb of product]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
TSS	0.35	0.18
Total phosphorus (as P).	0.56	0.28
Fluoride (as F)	0.21	0.11
pH	Within the range 6.0 to 9.5.	

§ 422.64 [Reserved]

§ 422.65 Standards of performance for new sources.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the standards of performance for new sources:

[Metric units, kg/kkg of product; English units, lb/1,000 lb of product]

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
TSS	0.35	0.18
Total phosphorus (as P).	0.56	0.28
Fluoride (as F)	0.21	0.11
pH	Within the range 6.0 to 9.5.	

§ 422.66 [Reserved]

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